GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: March 16, 2000, 16:37:36 ; Search time 151.92 Seconds
(without alignments)
5342.438 Million cell updates/sec

Title: US-09-211-755-1
Perfect score: 3244
Sequence: 1 TGACCTCGGGGCAGGTCCTG.....CTTGCAAAAAAAAAAAAAAA 3244

Scoring table: IDENTITY_NUC

Searched: 311585 seqs, 125096042 residues

Database : N_Geneseq_36:*

Word size : 0

Number of hits that pass the threshold : 623170

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	317.2	9.8	2924	1	V10267	Human GABA-BR1b re
2	315.2	9.7	2620	1	V10265	Human GABA-BR1a/b
3	312.8	9.6	2837	1	V10266	Rat GABA-BR1b rece
4	306	9.4	4376	1	V10264	Rat GABA-BR1a rece
5	286.8	8.8	314	1	V88919	EST clone HW456. N
6	177	5.5	361	1	X51891	Human secreted pro
7	45.4	1.4	2176	1	Q11726	Sequence encoding
8	45.4	1.4	397	1	X51965	Human secreted pro
c 9	43.6	1.3	15672	1	Q10613	Rianodin receptor
10	42.4	1.3	273	1	V89458	EST clone CO337. N
c 11	42.4	1.3	114955	1	X53491	Human adenosine A1
12	41.8	1.3	1312	1	Q73383	Human CCAAT/Enhanc
13	41.8	1.3	1312	1	T44325	DNA encoding CCAAT
c 14	41.6	1.3	8438	1	Q73500	DNA encoding Pseud
c 15	41.6	1.3	2823	1	T35233	Natural killer lyt
16	41.6	1.3	2888	1	T59268	Streptomyces prist
17	41	1.3	2618	1	T16710	Metabotropic gluta
18	41	1.3	2619	1	T29408	Human metabotropic
19	41	1.3	4131	1	T89290	Dogfish shark kidn
20	40.6	1.3	3865	1	Q37101	Bovine transglutam
c 21	40.6	1.3	10596	1	Q51731	Plasmid pCisEBON f
c 22	40.6	1.3	10596	1	T40348	Plasmid pCisEBON f
c 23	40.6	1.3	9600	1	V21683	Vector plasmid pCM
c 24	40.6	1.3	10596	1	X15650	Nucleotide sequenc
25	40.4	1.2	1080	1	T68789	Melanocortin-3 rec
26	40.4	1.2	1080	1	V06399	Human melanocortin
27	40.4	1.2	1080	1	V62351	Melanocortin-3 rec
28	40.4	1.2	1080	1	X01963	Human MC3 DNA. Pro
29	40.2	1.2	1648	1	Q25532	Sequence of genomi
30	40.2	1.2	1158	1	V06396	Maize optimised ge
c 31	40.2	1.2	799	1	V55831	Nucleotide sequenc
c 32	39.8	1.2	15377	1	Q25975	MH mutant porcine
33	39.4	1.2	2006	1	Q50147	Phospholipase D-P
34	39.2	1.2	5006	1	T61381	Parathyroid calciu
35	39.2	1.2	3809	1	T61382	Parathyroid calciu
36	39.2	1.2	1041	1	T77781	Nuclear mitotic ap
37	39.2	1.2	1092	1	T78310	E6AP-binding prote
38	39.2	1.2	4000	1	T86166	Nucleotide sequenc
39	39.2	1.2	5006	1	T95858	Human parathyroid
40	39.2	1.2	3809	1	T95859	Human parathyroid
41	39.2	1.2	5006	1	V26963	Human parathyroid
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43	39.2	1.2	5006	1	V82484	Human parathyroid
44	39.2	1.2	3809	1	V82485	Human parathyroid
45	39	1.2	1312	1	T93367	Mouse thrombin rec

ALIGNMENTS

RESULT 1
V10267
ID V10267 standard; cDNA to mRNA; 2924 BP.
AC V10267;
DT 03-JUN-1998 (first entry)
DE Human GABA-BR1b receptor cDNA.
KW Gamma-animobutyric acid; GABA-BR1a/b receptor; human; brain; agonist;
KW inhibitory neurotransmitter; peripheral nervous system; antagonist;
KW treatment; dementia; depression; anxiety; bronchial inflammation; asthma;
KW epilepsy; cognitive function; ds.
OS Homo sapiens.
FH Key Location/Qualifiers
FT CDS 169. .2703
FT /*tag= a
FT /product= GABA-BR1b
PN WO9746675-A1.
PD 11-DEC-1997.
PF 19-MAR-1997; E01370.
PR 22-NOV-1996; US-756091.
PR 30-MAY-1996; US-655716.
PA (NOVS) NOVARTIS AG.
PI Bettler B, Bittiger H, Froestl W, Kaupmann K, Mickel SJ;
DR WPI; 98-042183/04.
DR P-PSDB; W40119.
PT Purified GABA-B receptor or receptor protein - and antagonists of
PT these which may be useful in treating nervous system disorders
PS Claim 3; Page 79-86; 108pp; English.
CC This cDNA sequence encodes a novel human GABA-B receptor protein,
CC GABA-BR1b. GABA (gamma-aminobutyric acid) is the major inhibitory
CC neurotransmitter found in the brain and peripheral nervous system
CC and this receptor may be used for the identification of GABA-B
CC receptor agonists and antagonists. Such proteins may be used in
CC treatment of dementia, depression, anxiety, epilepsy, spasticity,
CC bronchial inflammation or asthma or to improve cognitive function.
CC GABA-B receptor ligands and probes derived from this sequence can be
CC used to assay for GABA-B receptors or DNA encoding them.
SQ Sequence 2924 BP; 628 A; 852 C; 793 G; 651 T;

Query Match 9.8%; Score 317.2; DB 1; Length 2924;
Best Local Similarity 48.2%; Pred. No. 3.3e-68;
Matches 1034; Conservative 0; Mismatches 1083; Indels 27; Gaps 4;

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Qy   292 GGCCTCATGCCGCTCACCAAGGAGGTGGCCAAGGGCAGCATCGGGCGCGGTGTGCTCCCC 351
           |     | | |  ||| |   | || |  |    |   |  |  | |   || | |
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Qy   472 GCGATAAAATACGGGCCGAACCACTTGATGGTGTTTGGAGGCGTCTGTCCATCCGTCACA 531
           | |  | |||  || | | |   |||  |  ||       | |||    || ||| |
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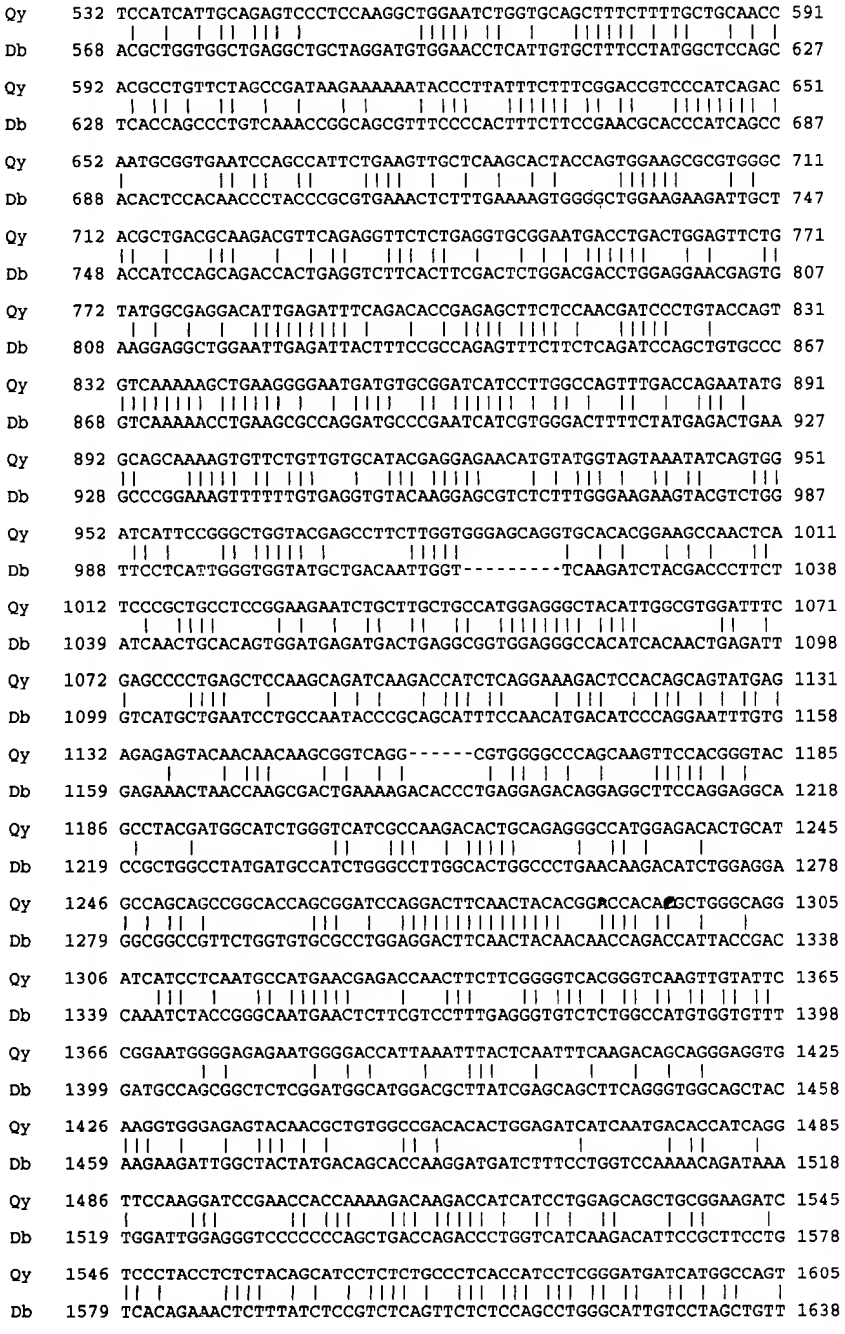

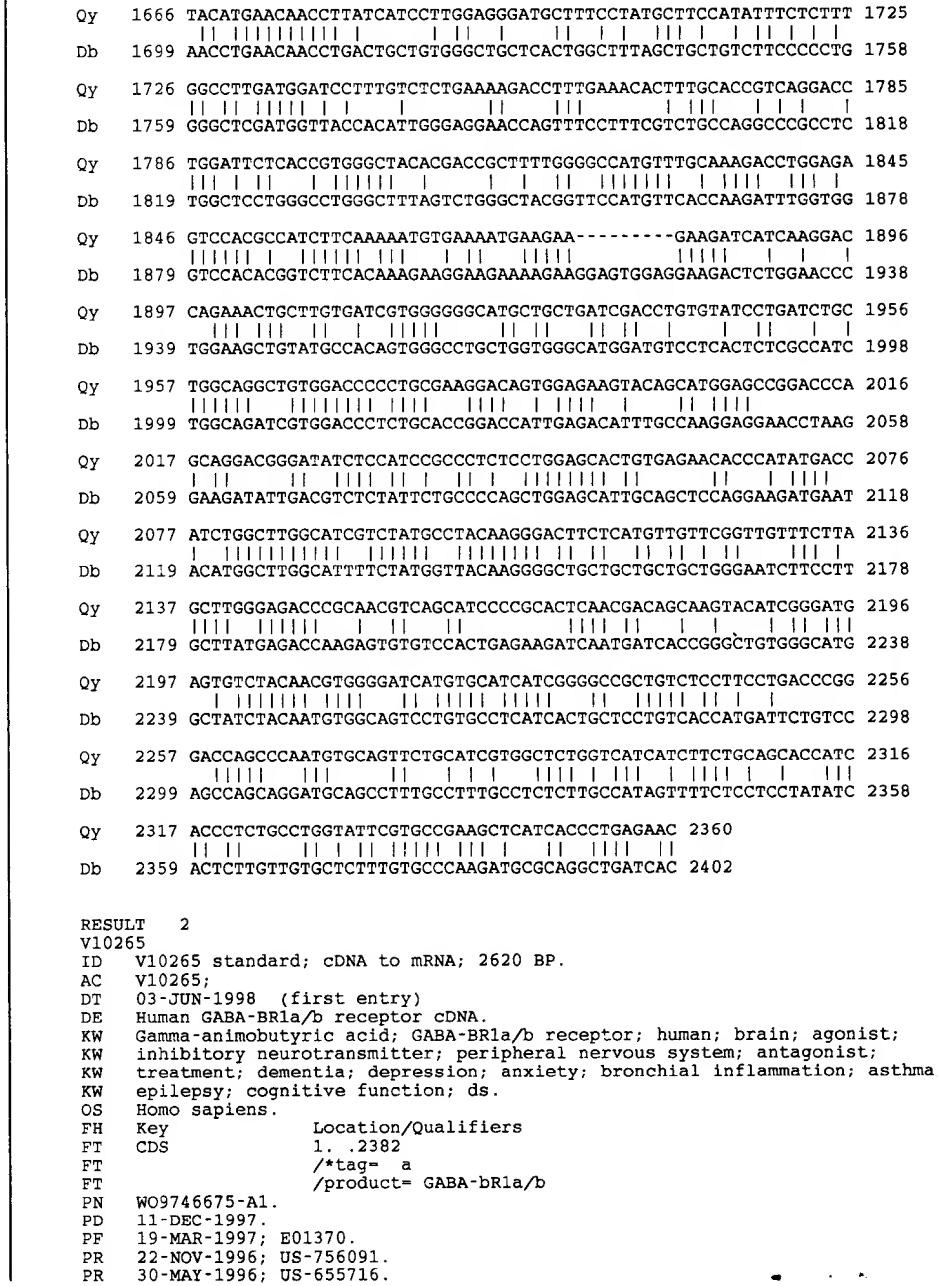

RESULT 2
V10265
ID V10265 standard; cDNA to mRNA; 2620 BP.
AC V10265;
DT 03-JUN-1998 (first entry)
DE Human GABA-BR1a/b receptor cDNA.
KW Gamma-animobutyric acid; GABA-BR1a/b receptor; human; brain; agonist;
KW inhibitory neurotransmitter; peripheral nervous system; antagonist;
KW treatment; dementia; depression; anxiety; bronchial inflammation; asthma;
KW epilepsy; cognitive function; ds.
OS Homo sapiens.
FH Key Location/Qualifiers
FT CDS 1. .2382
FT /*tag= a
FT /product= GABA-bR1a/b
PN WO9746675-A1.
PD 11-DEC-1997.
PF 19-MAR-1997; E01370.
PR 22-NOV-1996; US-756091.
PR 30-MAY-1996; US-655716.

PA (NOVS) NOVARTIS AG.
PI Bettler B, Bittiger H, Froestl W, Kaupmann K, Mickel SJ;
DR WPI; 98-042183/04.
DR P-PSDB; W40117.
PT Purified GABA-B receptor or receptor protein - and antagonists of
PT these which may be useful in treating nervous system disorders
PS Claim 3; Page 56-62; 108pp; English.
CC This cDNA sequence encodes a novel human GABA-B receptor protein,
CC GABA-BR1a/b. GABA (gamma-aminobutyric acid) is the major inhibitory
CC neurotransmitter found in the brain and peripheral nervous system
CC and this receptor may be used for the identification of GABA-B
CC receptor agonists and antagonists. Such proteins may be used in
CC treatment of dementia, depression, anxiety, epilepsy, spasticity,
CC bronchial inflammation or asthma or to improve cognitive function.
CC GABA-B receptor ligands and probes derived from this sequence can be
CC used to assay for GABA-B receptors or DNA encoding them.
SQ Sequence 2620 BP; 593 A; 716 C; 710 G; 601 T;

Query Match 9.7%; Score 315.2; DB 1; Length 2620;
Best Local Similarity 49.1%; Pred. No. 9.7e-68;
Matches 997; Conservative 0; Mismatches 1003; Indels 30; Gaps 5;

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Qy   349 CCCGCCGTGGAACTGGCCATCGAGCA---GATCCGCAACGAGTCACTCCTGCGCCCCTAC 405
Db    64 CCCGCGGTGGAGATGGCGCTGGAGGACGTGAATAGCCGCAGGGACATCCTGCCGGACTAT 123

Qy   406 TTCCTCGACCTGCGGCTCTATGACACGGAGTGCGACAACGCAAAAGGGTTGAAAGCCTTC 465
Db   124 GAGCTCAAGCTCATCCACCACGACAGCAAGTGTGATCCAGGCCAAGCCACCAAGTACCTA 183

Qy   466 TACGATGCGATAAAATACGGGCCGAACCACTTGATGGTGTTTGGAGGCGTCTGTCCATCC 525
Db   184 TATGAGCTGCTCTACAACGACCCTATCAA---GATCATCCTTATGCCTGGCTGCAGCTCT 240

Qy   526 GTCACATCCATCATTGCAGAGTCCCTCCAAGGCTGGAATCTGGTGCAGCTTTCTTTTGCT 585
Db   241 GTCTCCACGCTGGTGGCTGAGGCTGCTAGGATGTGGAACCTCATTGTGCTTTCCTATGGC 300

Qy   586 GCAACCACGCCTGTTCTAGCCGATAAGAAAAAATACCCTTATTTCTTTCGGACCGTCCCA 645
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Qy   646 TCAGACAATGCGGTGAATCCAGCCATTCTGAAGTTGCTCAAGCACTACCAGTGGAAGCGC 705
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Qy   706 GTGGGCACGCTGACGCAAGACGTTCAGAGGTTCTCTGAGGTGCGGAATGACCTGACTGGA 765
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Qy   766 GTTCTGTATGGCGAGGACATTGAGATTTCAGACACCGAGAGCTTCTCCAACGATCCCTGT 825
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Qy   826 ACCAGTGTCAAAAAGCTGAAGGGGAATGATGTGCGGATCATCCTTGGCCAGTTTGACCAG 885
Db   541 GTGCCCGTCAAAAACCTGAAGCGCCAGGATGCCCGAATCATCGTGGGACTTTTCTATGAG 600

Qy   886 AATATGGCAGCAAAAGTGTTCTGTTGTGCATACGAGGAGAACATGTATGGTAGTAAATAT 945
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Qy   946 CAGTGGATCATTCCGGGCTGGTACGAGCCTTCTTGGTGGGAGCAGGTGCACACGGAAGCC 1005
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Qy  1006 AACTCATCCCGCTGCCTCCGGAAGAATCTGCTTGCTGCCATGGAGGGCTACATTGGCGTG 1065
Db   712 CCTTCTATCAACTGCACAGTGGATGAGATGACTGAGGCGGTGGAGGGCCACATCACAACT 771

Qy  1066 GATTTCGAGCCCCTGAGCTCCAAGCAGATCAAGACCATCTCAGCAAAAGACTCCACAGCAG 1125
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Db   772 GAGATTGTCATGCTGAATCCTGCCAATACCCGCAGCATTTCCAACATGACATCCCAGGAA 831

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Qy  1180 GGGTACGCCTACGATGGCATCTGGGTCATCGCCAAGACACTGCAGAGGGCCATGGAGACA 1239
Db   892 GAGGCACCGCTGGCCTATGATGCCATCTGGGCCTTGGCACTGGCCCTGAACAAGACATCT 951

Qy  1240 CTGCATGCCAGCAGCCGGCACCAGCGGATCCAGGACTTCAACTACACGGACCACACGCTG 1299
Db   952 GGAGGAGGCGGCCGTTCTGGTGTGCGCCTGGAGGACTTCAACTACAACAACCAGACCATT 1011

Qy  1300 GGCAGGATCATCCTCAATGCCATGAACGAGACCAACTTCTTCGGGGTCACGGGTCAAGTT 1359
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Qy  1360 GTATTCCGGAATGGGGAGAGAATGGGGACCATTAAATTTACTCAATTTCAAGACAGCAGG 1419
Db  1072 GTGTTTGATGCCAGCGGCTCTCGGATGGCATGGACGCTTATCGAGCAGCTTCAGGGTGGC 1131

Qy  1420 GAGGTGAAGGTGGGAGAGTACAACGCTGTGGCCGACACACTGGAGATCATCAATGACACC 1479
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Qy  1480 ATCAGGTTCCAAGGATCCGAACCACCAAAAGACAAGACCATCATCCTGGAGCAGCTGCGG 1539
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Qy  1540 AAGATCTCCCTACCTCTCTACAGCATCCTCTCTGCCCTCACCATCCTCGGGATGATCATG 1599
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Qy  1780 AGGACCTGGATTCTCACCGTGGGCTACACGACCGCTTTTGGGGCCATGTTTGCAAAGACC 1839
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Qy  1898 -------AGAAACTGCTTGTGATCGTGGGGGGCATGCTGCTGATCGACCTGTGTATCCTG 1950
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Qy  1951 ATCTGCTGGCAGGCTGTGGACCCCCTGCGAAGGACAGTGGAGAAGTACAGCATGGAGCCG 2010
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Qy  2011 GACCCAGCAGGACGGGATATCTCCATCCGCCCTCTCCTGGAGCACTGTGAGAACACCCAT 2070
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Qy  2071 ATGACCATCTGGCTTGGCATCGTCTATGCCTACAAGGGACTTCTCATGTTGTTCGGTTGT 2130
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Qy  2131 TTCTTAGCTTGGGAGACCCGCAACGTCAGCATCCCCGCACTCAACGACAGCAAGTACATC 2190
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Qy   2251 ACCCGGGACCAGCCCAATGTGCAGTTCTGCATCGTGGCTCTGGTCATCATCTTCTGCAGC 2310
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Qy   2311 ACCATCACCCTCTGCCTGGTATTCGTGCCGAAGCTCATCACCCTGAGAAC 2360
Db   2032 TATATCACTCTTGTTGTGCTCTTTGTGCCCAAGATGCGCAGGCTGATCAC 2081


RESULT   3
V10266
ID   V10266 standard; cDNA to mRNA; 2837 BP.
AC   V10266;
DT   03-JUN-1998  (first entry)
DE   Rat GABA-BR1b receptor cDNA.
KW   Gamma-animobutyric acid; GABA-BR1b receptor; rat; brain; agonist;
KW   inhibitory neurotransmitter; peripheral nervous system; antagonist;
KW   treatment; dementia; depression; anxiety; bronchial inflammation; asthma;
KW   epilepsy; cognitive function; ds.
OS   Rattus norvegicus.
FH   Key             Location/Qualifiers
FT   CDS             228. .2762
FT                   /*tag=  a
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PN   WO9746675-A1.
PD   11-DEC-1997.
PF   19-MAR-1997; E01370.
PR   22-NOV-1996; US-756091.
PR   30-MAY-1996; US-655716.
PA   (NOVS ) NOVARTIS AG.
PI   Bettler B, Bittiger H, Froestl W, Kaupmann K, Mickel SJ;
DR   WPI; 98-042183/04.
DR   P-PSDB; W40118.
PT   Purified GABA-B receptor or receptor protein - and antagonists of
PT   these which may be useful in treating nervous system disorders
PS   Claim 3; Page 67-74; 108pp; English.
CC   This cDNA sequence encodes a novel rat GABA-B receptor protein,
CC   GABA-BR1b. GABA (gamma-aminobutyric acid) is the major inhibitory
CC   neurotransmitter found in the brain and peripheral nervous system
CC   and this receptor may be used for the identification of GABA-B
CC   receptor agonists and antagonists. Such proteins may be used in
CC   treatment of dementia, depression, anxiety, epilepsy, spasticity,
CC   bronchial inflammation or asthma or to improve cognitive function.
CC   GABA-B receptor ligands and probes derived from this sequence can be
CC   used to assay for GABA-B receptors or DNA encoding them.
SQ   Sequence   2837 BP;    621 A;    842 C;    764 G;    610 T;


  Query Match             9.6%;  Score 312.8;  DB 1;  Length 2837;
  Best Local Similarity   48.0%;  Pred. No. 3.9e-67;
  Matches 1038;  Conservative    0;  Mismatches 1097;  Indels   27;  Gaps    4;

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Qy    274 GGCCCGCTCTCCATCATGGGCCTCATGCCGCTCACCAAGGAGGTGGCCAAGGGCAGCATC 333
Db    372 GAACGGCGTGCAGTATACATCGGGGCGCTGTTTCCCATGAGCGGGGGCTGGCCGGGGGGC 431

Qy    334 GGGCGCGGTGTGCTCCCCGCCGTGGAACTGGCCATCGAGCAGATCCGCAACGAGTCACTC 393
Db    432 CAGGCCTGCCAGCCCGCGGTGGAGATGGCGCTGGAGGACGTTAACAGCCGCAGAGACATC 491

Qy    394 CTGCGCCCCTACTTCCTCGACCTGCGGCTCTATGACACGGAGTGCGACAACGCAAAAGGG 453
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Qy    454 TTGAAAGCCTTCTACGATGCGATAAAATACGGGCCGAACCACTTGATGGTGTTTGGAGGC 513
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Qy    514 GTCTGTCCATCCGTCACATCCATCATTGCAGAGTCCCTCCAAGGCTGGAATCTGGTGCAG 573
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Qy    574 CTTTCTTTTGCTGCAACCACGCCTGTTCTAGCCGATAAGAAAAAATACCCTTATTTCTTT 633
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Qy    634 CGGACCGTCCCATCAGACAATGCGGTGAATCCAGCCATTCTGAAGTTGCTCAAGCACTAC 693
Db    729 CGGACGCATCCATCCGCCACACTCCACAATCCCACCCGGGTGAAACTCTTCGAAAAGTGG 788

Qy    694 CAGTGGAAGCGCGTGGGCACGCTGACGCAAGACGTTCAGAGGTTCTCTGAGGTGCGGAAT 753
Db    789 GGCTGGAAGAAGATCGCTACCATCCAACAGACCACCGAGGTCTTCACCTCAACGCTGGAT 848

Qy    754 GACCTGACTGGAGTTCTGTATGGCGAGGACATTGAGATTTCAGACACCGAGAGCTTCTCC 813
Db    849 GACCTGGAGGAGCGAGTGAAAGAGGCTGGGATCGAGATCACTTTCCGACAGAGTTTCTTC 908

Qy    814 AACGATCCCTGTACCAGTGTCAAAAAGCTGAAGGGGAATGATGTGCGGATCATCCTTGGC 873
Db    909 TCGGATCCAGCTGTGCCTGTTAAAAACCTGAAGCGTCAAGATGCTCGAATCATCGTGGGA 968

Qy    874 CAGTTTGACCAGAATATGGCAGCAAAAGTGTTCTGTTGTGCATACGAGGAGAACATGTAT 933
Db    969 CTTTTCTATGAGACGGAAGCCCGGAAAGTTTTTTGTGAGGTCTATAAGGAAAGGCTCTTT 1028

Qy    934 GGTAGTAAATATCAGTGGATCATTCCGGGCTGGTACGAGCCTTCTTGGTGGGAGCAGGTG 993
Db   1029 GGGAAGAAGTACGTCTGGTTCCTCATCGGGTGGTATGCTGACAACTGGT---------TC 1079

Qy    994 CACACGGAAGCCAACTCATCCCGCTGCCTCCGGAAGAATCTGCTTGCTGCCATGGAGGGC 1053
Db   1080 AAGACCTATGACCCGTCAATCAATTGTACAGTGGAAGAAATGACCGAGGCGGTGGAGGGC 1139

Qy   1054 TACATTGGCGTGGATTTCGAGCCCCTGAGCTCCAAGCAGATCAAGACCATCTCAGGAAAG 1113
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Qy   1114 ACTCCACAGCAGTATGAGAGAGAGTACAACAACAAGCGGTCAGG------CGTGGGGCCC 1167
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Qy   1168 AGCAAGTTCCACGGGTACGCCTACGATGGCATCTGGGTCATCGCCAAGACACTGCAGAGG 1227
Db   1260 GGAGGCTTCCAGGAGGCACCACTGGCCTATGATGCTATCTGGGCCTTGGCTTTGGCCTTG 1319

Qy   1228 GCCATGGAGACACTGCATGCCAGCAGCCGGCACCAGCGGATCCAGGACTTCAACTACACG 1287
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Qy   1288 GACCACACGCTGGGCAGGATCATCCTCAATGCCATGAACGAGACCAACTTCTTCGGGGTC 1347
Db   1380 AACCAGACCATTACAGACCAGATCTACCGGGCCATGAACTCCTCCTCCTTTGAGGGCGTT 1439

Qy   1348 ACGGGTCAAGTTGTATTCCGGAATGGGGAGAGAATGGGGACCATTAAATTTACTCAATTT 1407
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Qy   1408 CAAGACAGCAGGGAGGTGAAGGTGGGAGAGTACAACGCTGTGGCCGACACACTGGAGATC 1467
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Qy   1468 ATCAATGACACCATCAGGTTCCAAGGATCCGAACCACCAAAAGACAAGACCATCATCCTG 1527
Db   1560 TGGTCCAAAACGGACAAGTGGATTGGAGGGTCTCCCCCAGCTGACCAGACCTTGGTCATC 1619

Qy   1528 GAGCAGCTGCGGAAGATCTCCCTACCTCTCTACAGCATCCTCTCTGCCCTCACCATCCTC 1587
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Db   1680 GGCATTGTTCTTGCTGTTGTCTGTCTGTCCTTTAACATCTACAACTCCCACGTTCGTTAT 1739

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Db   1740 ATCCAGAACTCCCAGCCCAACCTGAACAATCTGACTGCTGTGGGCTGCTCACTGGCACTG 1799

Qy   1708 GCTTCCATATTTCTCTTTGGCCTTGATGGATCCTTTGTCTCTGAAAAGACCTTTGAAACA 1767

Db   1800 GCTGCTGTCTTCCCTCTCGGGCTGGATGGTTACCACATAGGGAGAAGCCAGTTCCCGTTT 1859

Qy   1768 CTTTGCACCGTCAGGACCTGGATTCTCACCGTGGGCTACACGACCGCTTTTGGGGCCATG 1827

Db   1860 GTCTGCCAGGCCCGCCTTTGGCTCTTGGGCTTGGGCTTTAGTCTGGGCTATGGCTCTATG 1919

Qy   1828 TTTGCAAAGACCTGGAGAGTCCACGCCATCTTCAAAAATGTGAAAATGAAGAA------- 1881

Db   1920 TTCACCAAGATCTGGTGGGTCCACACAGTCTTCACGAAGAAGGAGGAGAAGAAGGAGTGG 1979

Qy   1881 --GAAGATCATCAAGGACCAGAAACTGCTTGTGATCGTGGGGGGCATGCTGCTGATCGAC 1938

Db   1980 AGGAAGACCCTAGAGCCCTGGAAACTCTATGCCACTGTGGGCCTGCTGGTGGGCATGGAT 2039

Qy   1939 CTGTGTATCCTGATCTGCTGGCAGGCTGTGGACCCCCTGCGAAGGACAGTGGAGAAGTAC 1998

Db   2040 GTCCTGACTCTTGCCATCTGGCAGATTGTGGACCCCTTGCACCGAACCATTGAGACTTTT 2099

Qy   1999 AGCATGGAGCCGGACCCAGCAGGACGGGATATCTCCATCCGCCCTCTCCTGGAGCACTGT 2058

Db   2100 GCCAAGGAGGAACCAAAGGAAGACATCGATGTCTCCATTCTGCCCCAGTTGGAGCACTGC 2159

Qy   2059 GAGAACACCCATATGACCATCTGGCTTGGCATCGTCTATGCCTACAAGGGACTTCTCATG 2118

Db   2160 AGCTCCAAGAAGATGAATACGTGGCTTGGCATTTTCTATGGTTACAAGGGGCTGCTGCTG 2219

Qy   2119 TTGTTCGGTTGTTTCTTAGCTTGGGAGACCCGCAACGTCAGCATCCCCGCACTCAACGAC 2178

Db   2220 CTGCTGGGAATCTTTCTTGCTTACGAAACCAAGAGCGTGTCCACTGAAAAGATCAATGAC 2279

Qy   2179 AGCAAGTACATCGGGATGAGTGTCTACAACGTGGGGATCATGTGCATCATCGGGGCCGCT 2238

Db   2280 CACAGGGCCGTGGGCATGGCTATCTACAATGTCGCGGTCCTGTGTCTCATCACTGCTCCT 2339

Qy   2239 GTCTCCTTCCTGACCCGGGACCAGCCCAATGTGCAGTTCTGCATCGTGGCTCTGGTCATC 2298

Db   2340 GTGACCATGATCCTTTCCAGTCAGCAGGACGCAGCCTTTGCCTTTGCCTCTCTGGCCATC 2399

Qy   2299 ATCTTCTGCAGCACCATCACCCTCTGCCTGGTATTCGTGCCGAAGCTCATCACCCTGAGA 2358

Db   2400 GTGTTCTCTTCCTACATCACTCTGGTTGTGCTCTTTGTGCCCAAGATGCGCAGGCTGATC 2459

Qy   2359 AC 2360

Db   2460 AC 2461
```

RESULT 4
V10264
ID V10264 standard; cDNA to mRNA; 4376 BP.
AC V10264;
DT 03-JUN-1998 (first entry)
DE Rat GABA-BR1a receptor cDNA.
KW Gamma-animobutyric acid; GABA-BR1a receptor; rat; brain; agonist;
KW inhibitory neurotransmitter; peripheral nervous system; antagonist;
KW treatment; dementia; depression; anxiety; bronchial inflammation; asthma;
KW epilepsy; cognitive function; ds.
OS Rattus norvegicus.
FH Key Location/Qualifiers
FT CDS 182. .3064
FT /*tag= a
FT /product= GABA-BR1a
PN WO9746675-A1.
PD 11-DEC-1997.
PF 19-MAR-1997; E01370.
PR 22-NOV-1996; US-756091.
PR 30-MAY-1996; US-655716.
PA (NOVS) NOVARTIS AG.
PI Bettler B, Bittiger H, Froestl W, Kaupmann K, Mickel SJ;
DR WPI; 98-042183/04.
DR P-PSDB; W40116.
PT Purified GABA-B receptor or receptor protein - and antagonists of
PT these which may be useful in treating nervous system disorders
PS Claim 3; Page 42-50; 108pp; English.
CC This cDNA sequence encodes a novel rat GABA-B receptor protein,
CC GABA-BR1a. GABA (gamma-aminobutyric acid) is the major inhibitory
CC neurotransmitter found in the brain and peripheral nervous system
CC and this receptor may be used for the identification of GABA-B
CC receptor agonists and antagonists. Such proteins may be used in
CC treatment of dementia, depression, anxiety, epilepsy, spasticity,
CC bronchial inflammation or asthma or to improve cognitive function.
CC GABA-B receptor ligands and probes derived from this sequence can be
CC used to assay for GABA-B receptors or DNA encoding them.
SQ Sequence 4376 BP; 940 A; 1209 C; 1195 G; 1032 T;

Query Match 9.4%; Score 306; DB 1; Length 4376;
Best Local Similarity 48.7%; Pred. No. 2.1e-65;
Matches 967; Conservative 0; Mismatches 990; Indels 27; Gaps 4;

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Qy    392 TCCTGCGCCCCTACTTCCTCGACCTGCGGCTCTATGACACGGAGTGCGACAACGCAAAAG 451

Db    792 TCCTGCCGGACTACGAGCTCAAGCTTATCCACCACGACAGCAAGTGTGACCCAGGGCAAG 851

Qy    452 GGTTGAAAGCCTTCTACGATGCGATAAAATACGGGCCGAACCACTTGATGGTGTTTGGAG 511

Db    852 CCACCAAGTACTTGTACGAACTACTCTACAATGACCCCATCAAGATCATTCTCATGCCTG 911

Qy    512 GCGTCTGTCCATCCGTCACATCCATCATTGCAGAGTCCCTCCAAGGCTGGAATCTGGTGC 571

Db    912 G---CTGTAGTTCTGTCTCCACACTTGTAGCTGAGGCTGCCCGGATGTGGAACCTTATTG 968

Qy    572 AGCTTTCTTTTGCTGCAACCACGCCTGTTCTAGCCGATAAGAAAAAATACCCTTATTTCT 631

Db    969 TGCTCTCATATGGCTCCAGTTCACCAGCCTTGTCAAACCGACAGCGGTTTCCCACGTTCT 1028

Qy    632 TTCGGACCGTCCCATCAGACAATGCGGTGAATCCAGCCATTCTGAAGTTGCTCAAGCACT 691

Db   1029 TCCGGACGCATCCATCCGCCACACTCCACAATCCCACCCGGGTGAAACTCTTCGAAAAGT 1088

Qy    692 ACCAGTGGAAGCGCGTGGGCACGCTGACGCAAGACGTTCAGAGGTTCTCTGAGGTGCGGA 751

Db   1089 GGGGCTGGAAGAAGATCGCTACCATCCAACAGACCACCGAGGTCTTCACCTCAACGCTGG 1148

Qy    752 ATGACCTGACTGGAGTTCTGTATGGCGAGGACATTGAGATTTCAGACACCGAGAGCTTCT 811

Db   1149 ATGACCTGGAGGAGCGAGTGAAAGAGGCTGGGATCGAGATCACTTTCCGACAGAGTTTCT 1208

Qy    812 CCAACGATCCCTGTACCAGTGTCAAAAAGCTGAAGGGGAATGATGTGCGGATCATCCTTG 871

Db   1209 TCTCGGATCCAGCTGTGCCTGTTAAAAACCTGAAGCGTCAAGATGCTCGAATCATCGTGG 1268

Qy    872 GCCAGTTTGACCAGAATATGGCAGCAAAAGTGTTCTGTTGTGCATACGAGGAGAACATGT 931

Db   1269 GACTTTTCTATGAGACGGAAGCCCGGAAAGTTTTTTGTGAGGTCTATAAGGAAAGGCTCT 1328

Qy    932 ATGGTAGTAAATATCAGTGGATCATTCCGGGCTGGTACGAGCCTTCTTGGTGGGAGCAGG 991

Db   1329 TTGGGAAGAAGTACGTCTGGTTCCTCATCGGGTGGTATGCTGACAACTGGT--------- 1380

Qy    992 TGCACACGGAAGCCAACTCATCCCGCTGCCTCCGGAAGAATCTGCTTGCTGCCATGGAGG 1051

Db   1380 TCAAGACCTATGACCCGTCAATCAATTGTACAGTGGAAGAAATGACCGAGGCGGTGGAGG 1439
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Qy   1052 GCTACATTGGCGTGGATTTCGAGCCCCTGAGCTCCAAGCAGATCAAGACCATCTCAGGAA 1111
          || |||| | ||| | | |||| | | | | ||| ||  |
Db   1440 GCCACATCACCACGGAGATTGTCATGCTGAACCCTGCCAACACCCGAAGCATTTCCAACA 1499

Qy   1112 AGACTCCACAGCAGTATGAGAGAGAGTACAACAACAAGCGGTCAGG------CGTGGGGC 1165
           ||| ||||| | | || |   |   | |||  || |  | |      || || |
Db   1500 TGACGTCACAGGAATTTGTGGAGAAACTAACCAAGCGGCTGAAAAGACACCCCGAGGAGA 1559

Qy   1166 CCAGCAAGTTCCACGGGTACGCCTACGATGGCATCTGGGTCATCGCCAAGACACTGCAGA 1225
          |  |    ||||| | |    |    |           ||  ||| | |  ||
Db   1560 CTGGAGGCTTCCAGGAGGCACCACTGGCCTATGATGCTATCTGGGCCTTGGCTTTGGCCT 1619

Qy   1226 GGGCCATGGAGACACTGCATGCCAGCAGCCGGCACCAGCGGATCCAGGACTTCAACTACA 1285
          |  || |  | |       |   |  |      |  |||  |  ||||||| |||||||
Db   1620 TGAACAAGACGTCTGGAGGAGGTGGTCGTTCCGGCGTGCGCCTGGAGGACTTTAACTACA 1679

Qy   1286 CGGACCACACGCTGGGCAGGATCATCCTCAATGCCATGAACGAGACCAACTTCTTCGGGG 1345
           |||| ||  |         |||  |   |||||||||    ||  |||   || |
Db   1680 ACAACCAGACCATTACAGACCAGATCTACCGGGCCATGAACTCCTCCTCCTTTGAGGGCG 1739

Qy   1346 TCACGGGTCAAGTTGTATTCCGGAATGGGGAGAGAATGGGGACCATTAAATTTACTCAAT 1405
          |  | || || || || ||        | |       |  | |    | | |||   |
Db   1740 TTTCTGGCCATGTGGTCTTTGATGCCAGCGGCTCCCGGATGGCATGGACACTTATCGAGC 1799

Qy   1406 TTCAAGACAGCAGGGAGGTGAAGGTGGGAGAGTACAACGCTGTGGCCGACACACTGGAGA 1465
            | | |  || |       |||  |   |  ||| |||      || |
Db   1800 AGCTACAGGGCGGCAGCTACAAGAAGATCGGCTACTACGACAGCACCAAGGATGATCTTT 1859

Qy   1466 TCATCAATGACACCATCAGGTTCCAAGGATCCGAACCACCAAAAGACAAGACCATCATCC 1525
           |       | ||   || ||     |||      || |||   ||| ||||| |  ||
Db   1860 CCTGGTCCAAAACGGACAAGTGGATTGGAGGGTCTCCCCCAGCTGACCAGACCTTGGTCA 1919

Qy   1526 TGGAGCAGCTGCGGAAGATCTCCCTACCTCTCTACAGCATCCTCTCTGCCCTCACCATCC 1585
          |  ||    | ||     | || |    ||||  | |  | |||| |  ||| ||| ||
Db   1920 TCAAGACATTCCGTTTCCTGTCTCAGAAACTCTTTATCTCCGTCTCAGTTCTCTCCAGCC 1979

Qy   1586 TCGGGATGATCATGGCCAGTGCTTTTCTCTTCTTCAACATCAAGAACCGGAATCAGAAGC 1645
          | || ||  |  | ||   ||  | ||| | ||| |||||| | |||    |
Db   1980 TGGGCATTGTTCTTGCTGTTGTCTGTCTGTCCTTTAACATCTACAACTCCCACGTTCGTT 2039

Qy   1646 TCATAAAGATGTCGAGTCCATACATGAACAACCTTATCATCCTTGGAGGGATGCTTTCCT 1705
            ||  |||  ||     ||  || |||||| || |      | ||  |    ||  |
Db   2040 ATATCCAGAACTCCCAGCCCAACCTGAACAATCTGACTGCTGTGGGCTGCTCACTGGCAC 2099

Qy   1706 ATGCTTCCATATTTCTCTTTGGCCTTGATGGATCCTTTGTCTCTGAAAAGACCTTTGAAA 1765
            ||| |  | || |   | || || ||||| | |    |      ||     ||
Db   2100 TGGCTGCTGTCTTCCCTCTCGGGCTGGATGGTTACCACATAGGGAGAAGCCAGTTCCCGT 2159

Qy   1766 CACTTTGCACCGTCAGGACCTGGATTCTCACCGTGGGCTACACGACCGCTTTTGGGGCCA 1825
           | |||   | | |    ||| |  |   | ||||||  |      |  | |||  | |
Db   2160 TTGTCTGCCAGGCCCGCCTTTGGCTCTTGGGCTTGGGCTTTAGTCTGGGCTATGGCTCTA 2219

Qy   1826 TGTTTGCAAAGACCTGGAGAGTCCACGCCATCTTCAAAAATGTGAAAATGAAGAA----- 1881
          ||||  | |||| |||| | |||||| |  |||||  ||   | |  ||||||
Db   2220 TGTTCACCAAGATCTGGTGGGTCCACACAGTCTTCACGAAGAAGGAGGAGAAGAAGGAGT 2279

Qy   1881 ----GAAGATCATCAAGGACCAGAAACTGCTTGTGATCGTGGGGGGCATGCTGCTGATCG 1936
               ||||| | |  ||  |  |||||   ||  |  |||||     || ||   || |
Db   2280 GGAGGAAGACCCTAGAGCCCTGGAAACTCTATGCCACTGTGGGCCTGCTGGTGGGCATGG 2339

Qy   1937 ACCTGTGTATCCTGATCTGCTGGCAGGCTGTGGACCCCCTGCGAAGGACAGTGGAGAAGT 1996
          |  |    |  ||   |  |||||||  ||||||||||| |||   | ||  | ||||  |
Db   2340 ATGTCCTGACTCTTGCCATCTGGCAGATTGTGGACCCCTTGCACCGAACCATTGAGACTT 2399

Qy   1997 ACAGCATGGAGCCGGACCCAGCAGGACGGGATATCTCCATCCGCCCTCTCCTGGAGCACT 2056
            || ||||          | ||     ||| ||||||| |  || |   |||||||||
Db   2400 TTGCCAAGGAGGAACCAAAGGAAGACATCGATGTCTCCATTCTGCCCCAGTTGGAGCACT 2459

Qy   2057 GTGAGAACACCCATATGACCATCTGGCTTGGCATCGTCTATGCCTACAAGGGACTTCTCA 2116
          |      ||   | |||| |  ||||||||||| ||||||  |||||||| || ||
Db   2460 GCAGCTCCAAGAAGATGAATACGTGGCTTGGCATTTTCTATGGTTACAAGGGGCTGCTGC 2519

Qy   2117 TGTTGTTCGGTTGTTTCTTAGCTTGGGAGACCCGCAACGTCAGCATCCCCGCACTCAACG 2176
          || || | ||    ||  | ||||  || |||   | |||  ||         |||| |
Db   2520 TGCTGCTGGGAATCTTTCTTGCTTACGAAACCAAGAGCGTGTCCACTGAAAAGATCAATG 2579

Qy   2177 ACAGCAAGTACATCGGGATGAGTGTCTACAACGTGGGGATCATGTGCATCATCGGGGCCG 2236
          ||  || |  | | || |||  | |||||| || | | || ||||  |||||   ||
Db   2580 ACCACAGGGCCGTGGGCATGGCTATCTACAATGTCGCGGTCCTGTGTCTCATCACTGCTC 2639

Qy   2237 CTGTCTCCTTCCTGACCCGGGACCAGCCCAATGTGCAGTTCTGCATCGTGGCTCTGGTCA 2296
          ||||  || |  |       ||||   | |    ||   | | |   ||||||  ||
Db   2640 CTGTGACCATGATCCTTTCCAGTCAGCAGGACGCAGCCTTTGCCTTTGCCTCTCTGGCCA 2699

Qy   2297 TCATCTTCTGCAGCACCATCACCCTCTGCCTGGTATTCGTGCCGAAGCTCATCACCCTGA 2356
          || | ||||    |  |||||| ||     || | || ||||| ||| |   ||  ||||
Db   2700 TCGTGTTCTCTTCCTACATCACTCTGGTTGTGCTCTTTGTGCCCAAGATGCGCAGGCTGA 2759

Qy   2357 GAAC 2360
            ||
Db   2760 TCAC 2763


RESULT   5
V88919
ID   V88919 standard; cDNA; 314 BP.
AC   V88919;
DT   12-FEB-1999  (first entry)
DE   EST clone HW456.
KW   Expressed sequence tag; secreted protein; haematopoiesis regulator;
KW   tissue growth; activin; inhibin; tumour invasion suppressor; EST; human;
KW   chemotaxis; chemokinesis; haemostasis; gene therapy; thrombolysis;
KW   receptor; ligand; anti-inflammatory; tumour inhibitor; ds.
OS   Homo sapiens.
PN   WO9845437-A2.
PD   15-OCT-1998.
PF   10-APR-1998; U06956.
PR   10-APR-1997; US-837312.
PA   (GEMY ) GENETICS INST INC.
PI   Agostino MJ, Jacobs K, Lavallie ER, McCoy JM, Merberg D,
PI   Racie LA, Spaulding V, Treacy M;
DR   WPI; 99-070078/06.
PT   New polynucleotides encoding human secreted proteins - derived from
PT   e.g. human blood, kidney, foetal lung, placenta, testes, brain,
PT   ovary, pituitary, retina and colon cDNA libraries
PS   Claim 1; Page 556-557; 641pp; English.
CC   The present sequence represents an expressed sequence tag (EST), and is
CC   a polynucleotide of the invention. The polynucleotides of the invention
CC   are all secreted EST sequences isolated from a variety of human tissue
CC   sources. The EST sequences and proteins encoded by them are predicted to
CC   have useful biological activities which would make them suitable for
CC   treating, preventing or ameliorating medical conditions in humans and
CC   animals, although no supporting data is given. Suggested activities
CC   include nutritional activity, immune stimulating or suppressing activity,
CC   haematopoiesis regulating activity, tissue growth activity,
CC   activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, receptor/ligand activity, anti-inflammatory
CC   activity, cadherin/tumour invasion suppressor activity, tumour inhibition
CC   activity. The EST sequences are also stated to be useful for gene
CC   therapy.
SQ   Sequence   314 BP;    72 A;    81 C;    89 G;    72 T;


  Query Match             8.8%;  Score 286.8;  DB 1;  Length 314;
  Best Local Similarity   97.7%;  Pred. No. 3.6e-61;
  Matches  291;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy   1857 CTTCAAAAATGTGAAAATGAAGAAGAAGATCATCAAGGACCAGAAACTGCTTGTGATCGT 1916
          |||||       ||||||||||||||||||||||||||||||||||||||||||||||
Db     10 CTTCATGGCCTAGAAAATGAAGAAGAAGATCATCAAGGACCAGAAACTGCTTGTGATCGT 69

Qy   1917 GGGGGGCATGCTGCTGATCGACCTGTGTATCCTGATCTGCTGGCAGGCTGTGGACCCCCT 1976
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     70 GGGGGGCATGCTGCTGATCGACCTGTGTATCCTGATCTGCTGGCAGGCTGTGGACCCCCT 129
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Qy   1977 GCGAAGGACAGTGGAGAAGTACAGCATGGAGCCGGACCCAGCAGGACGGGATATCTCCAT 2036
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    130 GCGAAGGACAGTGGAGAAGTACAGCATGGAGCCGGACCCAGCAGGACGGGATATCTCCAT 189

Qy   2037 CCGCCCTCTCCTGGAGCACTGTGAGAACACCCATATGACCATCTGGCTTGGCATCGTCTA 2096
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    190 CCGCCCTCTCCTGGAGCACTGTGAGAACACCCATATGACCATCTGGCTTGGCATCGTCTA 249

Qy   2097 TGCCTACAAGGGACTTCTCATGTTGTTCGGTTGTTTCTTAGCTTGGGAGACCCGCAAC 2154
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    250 TGCCTACAAGGGACTTCTCATGTTGTTCGGTTGTTTCTTAGCTTGGGAGACCCGCAAC 307
```

RESULT 6
X51891
ID X51891 standard; DNA; 361 BP.
AC X51891;
DT 22-JUN-1999 (first entry)
DE Human secreted protein 5' EST SEQ ID NO: 105.
KW Human; secreted protein; EST; expressed sequence tag; diagnosis;
KW forensic; gene therapy; chromosome mapping; signal peptide;
KW upstream regulatory sequence; cytokine activity; cell proliferation;
KW differentiation; haematopoiesis regulation; tissue growth regulation;
KW reproductive hormone regulation; chemotactic; chemokinetic; haemostatic;
KW thrombolytic; anti-inflammatory; tumour inhibition; ds.
OS Homo sapiens.
PN WO9906552-A2.
PD 11-FEB-1999.
PF 31-JUL-1998; IB1236.
PR 01-AUG-1997; US-905223.
PA (GEST) GENSET.
PI Duclert A, Dumas Milne Edwards J, Lacroix B;
DR WPI; 99-153782/13.
DR P-PSDB; Y13091.
PT New isolated brain-derived nucleic acids - used to develop products
PT which may have cytokine, immune, regulatory, haematopoiesis
PT regulating, anti-inflammatory or tumour inhibition activity
PS Claim 1; Page 253; 577pp; English.
CC X51787 to X52019 represent 5' expressed sequence tags (ESTs) for human
CC secreted proteins, and encode the proteins given in Y12987 to Y13219,
CC respectively. The proteins given represent the signal peptide and an
CC N-terminal fragment of a secreted protein. The nucleic acid sequences
CC can be used for producing secreted human gene products. They can also
CC be used to develop products for diagnosis and therapy. The proteins
CC obtained may have cytokine activity, cell proliferation/differentiation
CC activity, haematopoiesis regulating activity, tissue growth regulating
CC activity, reproductive hormone regulating activity, chemotactic/
CC chemokinetic activity, haemostatic and thrombolytic activity, receptor/
CC ligand activity, anti-inflammatory activity, tumour inhibition activity
CC or other activities. The products can be used in forensic, gene therapy
CC and chromosome mapping procedures. The sequences can also be used for
CC obtaining corresponding promoter sequences. The nucleic acids encoding
CC the signal peptide can be used for directing extracellular secretion of
CC a polypeptide or the insertion of a polypeptide into a membrane, or
CC importing a polypeptide into a cell.
SQ Sequence 361 BP; 86 A; 89 C; 94 G; 92 T;

Query Match 5.5%; Score 177; DB 1; Length 361;
Best Local Similarity 90.4%; Pred. No. 2.9e-34;
Matches 189; Conservative 0; Mismatches 20; Indels 0; Gaps 0;

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Qy    404 ACTTCCTCGACCTGCGGCTCTATGACACGGAGTGCGACAACGCAAAAGGGTTGAAAGCCT 463
          | | | || |  || | | | |        ||||||||||||||||||||||||||||||
Db    153 AGTCCATCTATTTGGGACGCGAATCATGTCAGTGCGACAACGCAAAAGGGTTGAAAGCCT 212

Qy    464 TCTACGATGCGATAAAATACGGGCCGAACCACTTGATGGTGTTTGGAGGCGTCTGTCCAT 523
          |||||||||| |||||||||||| ||||||||||||||||||||||||||||||||||||
Db    213 TCTACGATGCAATAAAATACGGGCCTAACCACTTGATGGTGTTTGGAGGCGTCTGTCCAT 272

Qy    524 CCGTCACATCCATCATTGCAGAGTCCCTCCAAGGCTGGAATCTGGTGCAGCTTTCTTTTG 583
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    273 CCGTCACATCCATCATTGCAGAGTCCCTCCAAGGCTGGAATCTGGTGCAGCTTTCTTTTG 332

Qy    584 CTGCAACCACGCCTGTTCTAGCCGATAAG 612
          ||||||||||||||||||||||||||||
Db    333 CTGCAACCACGCCTGTTCTAGCCGATAAG 361
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RESULT 7
Q11726
ID Q11726 standard; DNA; 2176 BP.
AC Q11726;
DT 25-JUN-1991 (first entry)
DE Sequence encoding viral reverse transcriptase enzyme.
KW Reverse transcriptase; HIV; HTLV-I; ss.
OS Myxococcus xanthus.
FH Key Location/Qualifiers
FT cds 640. .2097
FT /*tag= a
FT /product= viral reverse transcriptase
PN J03022975-A.
PD 31-JAN-1991.
PF 22-FEB-1990; 042305.
PR 24-FEB-1989; US-315316.
PA (UYNE-) Univ of New Jersey.
DR WPI; 91-127415/18.
DR P-PSDB; R11919.
PT Novel protein having reverse transcriptase enzyme activity -
PT obtd. by culturing Myxococcus xanthus FB
PS Disclosure; fig 4; 9pp; Japanese.
CC This sequence encodes a protein with viral (e.g. HIV or HTLV-I)
CC reverse transcriptase enzyme activity and is extracted from
CC Myxococcus xanthus. See also J03022976.
SQ Sequence 2176 BP; 340 A; 763 C; 789 G; 284 T;

Query Match 1.4%; Score 45.4; DB 1; Length 2176;
Best Local Similarity 50.6%; Pred. No. 0.1;
Matches 135; Conservative 0; Mismatches 131; Indels 1; Gaps 1;

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Qy    149 GGAGTCGAGGGCGAGGGAGAGGCCGCGTGAGTGAGCAGAGTCCAGAGCCGTGCGCCCCCA 208
          | || |  ||  |  | ||| |  |   |||    | |||  | |  || ||   |  ||
Db    891 GAAGGCCTGGAAGGAGAAGAAGAAGGCCGAGGCCACCGAGCGCCGCCCCCTGAAGCGTCA 950

Qy    209 GAACTGCGCGTCCGCCCCGTGCACCCCCGCGCGCCATGCCCAGTTGCCCCGCGCGCTCTG 268
          |     || | |       |  ||| | || | ||||    |    |||||  || ||| |
Db    951 GGCGCACGAGGCGTGGAAGGCCACGCACGTGGGCCACCTGCGCCCGCCCC-TGCACTCGG 1009

Qy    269 CTACGGGCCCGCTCTCCATCATGGGCCTCATGCCGCTCACCAAGGAGGTGGCCAAGGGCA 328
          |   || ||| ||  ||  |  |  |  | |||| | |  | |||||   |||  || ||
Db   1010 CGGAGGACCCCCTGGCCGACGCGTTCGACGTGCCCCACCGCGAGGAGCCCGCCCGGGCCA 1069

Qy    329 GCATCGGGCGCGGTGTGCTCCCCGCCGTGGAACTGGCCATCGAGCAGATCCGCAACGAGT 388
          |  |  |   |   ||  | | || | ||  |||||||  | || |   |  | || ||
Db   1070 ACCGCCTGACGGAGCTGGACTCGGCGGAGGCGCTGGCCAAGGCGCTGGGGCTGACCGTGT 1129

Qy    389 CACTCCTGCGCCCCTACTTCCTCGACC 415
          |    ||||||   | |    || |||
Db   1130 CCAAGCTGCGCTGGTTCGCGTTCCACC 1156
```

RESULT 8
X51965
ID X51965 standard; DNA; 397 BP.
AC X51965;
DT 22-JUN-1999 (first entry)
DE Human secreted protein 5' EST SEQ ID NO: 179.
KW Human; secreted protein; EST; expressed sequence tag; diagnosis;
KW forensic; gene therapy; chromosome mapping; signal peptide;
KW upstream regulatory sequence; cytokine activity; cell proliferation;
KW differentiation; haematopoiesis regulation; tissue growth regulation;
KW reproductive hormone regulation; chemotactic; chemokinetic; haemostatic;
KW thrombolytic; anti-inflammatory; tumour inhibition; ds.
OS Homo sapiens.
PN WO9906552-A2.

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PD   11-FEB-1999.
PF   31-JUL-1998; IB1236.
PR   01-AUG-1997; US-905223.
PA   (GEST ) GENSET.
PI   Duclert A, Dumas Milne Edwards J, Lacroix B;
DR   WPI; 99-153782/13.
DR   P-PSDB; Y13165.
PT   New isolated brain-derived nucleic acids - used to develop products
PT   which may have cytokine, immune, regulatory, haematopoiesis
PT   regulating, anti-inflammatory or tumour inhibition activity
PS   Claim 1; Page 349; 577pp; English.
CC   X51787 to X52019 represent 5' expressed sequence tags (ESTs) for human
CC   secreted proteins, and encode the proteins given in Y12987 to Y13219,
CC   respectively. The proteins given represent the signal peptide and an
CC   N-terminal fragment of a secreted protein. The nucleic acid sequences
CC   can be used for producing secreted human gene products. They can also
CC   be used to develop products for diagnosis and therapy. The proteins
CC   obtained may have cytokine activity, cell proliferation/differentiation
CC   activity, haematopoiesis regulating activity, tissue growth regulating
CC   activity, reproductive hormone regulating activity, chemotactic/
CC   chemokinetic activity, haemostatic and thrombolytic activity, receptor/
CC   ligand activity, anti-inflammatory activity, tumour inhibition activity
CC   or other activities. The products can be used in forensic, gene therapy
CC   and chromosome mapping procedures. The sequences can also be used for
CC   obtaining corresponding promoter sequences. The nucleic acids encoding
CC   the signal peptide can be used for directing extracellular secretion of
CC   a polypeptide or the insertion of a polypeptide into a membrane, or
CC   importing a polypeptide into a cell.
SQ   Sequence   397 BP;    79 A;    111 C;    93 G;    107 T;

  Query Match             1.4%;  Score 45.4;  DB 1;  Length 397;
  Best Local Similarity   51.3%;  Pred. No. 0.05;
  Matches  117;  Conservative    3;  Mismatches  107;  Indels    1;  Gaps    1;

Qy   1501 CCACCAAAAGACAAGACCATCATCCTGGAGCAGCTGCGGAAGATCTCCCTACCTCTCTAC 1560
            || |||   |:: ||||| |  || |  ||    | ||     | || | |     ||
Db    168 CCCCCAGCTGRSCAGACCCTGGTCATCAAGACATTCCGCTTCCTGTCAC-AGANNNCTTT 226

Qy   1561 AGCATCCTCTCTGCCCTCACCATCCTCGGGATGATCATGGCCAGTGCTTTTCTCTTCTTC 1620
            | |  | |||| |  ||| ||| ||| || ||  || | ||   ||  | ||| | |||
Db    227 ATCTCCGTCTCAGTTCTCTCCAGCCTGGGCATTGTCCTAGCTGTTGTCTGTCTGTCCTTT 286

Qy   1621 AACATCAAGAACCGGAATCAGAAGCTCATAAAGATGTCGAGTCCATACATGAACAACCTT 1680
            |||||| | |||    ||         ||  |||  ||    ||  || ||||||||||
Db    287 AACATCTACAACTCACATGTCCGTTATATCCAGAACTCACAGCCCAACCTGAACAACCTG 346

Qy   1681 ATCATCCTTGGAGGGATGCTTTCCTATGCTTCCATATTTCTCTTTGGC 1728
            |      | ||  |    :|  | |  ||| |  | || | ||  |||
Db    347 ACTGCTGTGGGCTGCTCAMTGGCTTTAGCTGCTGTCTTCCCCTGGGGC 394


RESULT   9
Q10613/c
ID   Q10613 standard; DNA; 15672 BP.
AC   Q10613;
DT   26-APR-1991  (first entry)
DE   Rianodin receptor gene.
KW   Rianodin receptor gene; calcium release modulator; tranquiliser;
KW   antagonist; ss.
OS   Oryctolagus cuniculus.
FH   Key             Location/Qualifiers
FT   cds             593. .15553
FT                   /*tag=  a
FT                   /product= rianodin receptor
FT   gc_signal       351. .356
FT                   /*tag=  b
FT                   /note= "feature unlabelled in specification"
FT   gc_signal       407. .452
FT                   /*tag=  c
FT                   /note= "feature unlabelled in specification"
FT   caat_signal     392. .396
FT                   /*tag=  d
FT                   /note= "feature unlabelled in specification"
FT   misc_feature    503. .510
FT                   /*tag=  e
FT                   /note= "feature unlabelled in specification"
FT   misc_feature    514. .521
FT                   /*tag=  f
FT                   /note= "feature unlabelled in specification"
FT   polya_signal    15388. .15393
FT                   /*tag=  g
PN   J03011098-A.
PD   18-JAN-1991.
PF   07-JUN-1989; 144569.
PR   07-JUN-1989; JP-144569.
PA   (MITU) Mitsubishi Kasei Corp.
DR   WPI; 91-062003/09.
DR   P-PSDB; R10834.
PT   New rianodin receptor, genes encoding it and its prepn. - useful as
PT   calcium release modulator for tranquillisers and for assaying
PT   calcium antagonists.
PS   Disclosure; Fig 1; 18pp; Japanese.
CC   RNA contg. poly(A) was prepared from rabbit skeletal muscle
CC   endoplasmic reticulum.  From the obtd. poly(A) mRNA, a cDNA bank
CC   corresp. to it was prepared by random primer method, oligo (dT)
CC   primer method, and primer extension method.  A cDNA was obtained by
CC   screening with a DNA probe (see Q10614-15).  By introducing the obtd.
CC   cDNA into an expression vector, vector pRRS7 was formed.
CC   The product is said to be involved in calcium release from
CC   sarcoplasmic reticulum which triggers constriction of skeletal muscle.
CC   Therefore, the receptor is useful as tranquilliser and assay series for
CC   screening of calcium antagonist.
SQ   Sequence   15672 BP;    3139 A;    4909 C;    4955 G;    2669 T;

  Query Match             1.3%;  Score 43.6;  DB 1;  Length 15672;
  Best Local Similarity   46.9%;  Pred. No. 0.63;
  Matches  136;  Conservative    0;  Mismatches  154;  Indels    0;  Gaps    0;

Qy   2766 TCCAGAACACATCCAGCGTCGGCTGTCCCTCCAGCTCCCCATCCTCCACCACGCCTACCT 2825
            ||  | |  | ||  |||| ||| || || || ||       ||  |||   | || |
Db  13856 TCGGGGAGCCCTCGGGCGTGGGCGGTTCCGCCGGCGTGGTGTCGCCCATGTCCCCAAGGC 13797

Qy   2826 CCCATCCATCGGAGGCGTGGACGCCAGCTGTGTCAGCCCCTGCGTCAGCCCCACCGCCAG 2885
            | |   |  |   ||   ||| |    |   ||| ||| | ||  |  |||| || ||
Db  13796 CGCCAGCGCCCTCGGGCCGGAAGGGGCCCCCGTCGGCCACGGCCACGACCCCCTCGGCAC 13737

Qy   2886 CCCCCGCCACAGACATGTGCCACCCTCCTTCCGAGTCATGGTCTCGGGCCTGTAAGGGTG 2945
            | ||||   | | |  ||| | | |  | |||   ||   ||| |   |      |
Db  13736 CGCCCGGGCCGGCCTCGTGACCCGCCACCTCCTCATCGCCGTCACCCTCGGCCGCGTCGC 13677

Qy   2946 GGAGGCCTGGGCCCGGGGCCTCCCCCGTGACAGAACCACACTGGGCAGAGGGGTCTGCTG 3005
              ||||  ||||  | || | ||      |    || |   |  | |  || |   |
Db  13676 CCTCGCCTTCGCCCTCGCCCGCGCCGTCCGCGTCGCCGCCGGGCCCGGCCGGCTGCTCGC 13617

Qy   3006 CAGAAACACTGTCGGCTCTGGCTGCGGAGAAGCTGGGCACCATGGCTGGC 3055
            |    ||   ||||    |||   |||  | || || || ||   | | |
Db  13616 CGTGCACCTCGTCGCTGGTGGGATCGGGCATGCCGGCCAGCAGCTCGGTC 13567


RESULT  10
V89458
ID   V89458 standard; cDNA; 273 BP.
AC   V89458;
DT   15-FEB-1999  (first entry)
DE   EST clone CO337.
KW   Human; secreted protein; expressed sequence tag; EST; haematopoiesis;
KW   tissue growth; activin; inhibin; chemotaxis; chemokinesis; haemostatic;
KW   receptor; ligand; thrombolytic; anti-inflammatory; cadherin; anti-tumour;
KW   gene therapy; ss.
OS   Homo sapiens.
PN   WO9845436-A2.
PD   15-OCT-1998.
PF   10-APR-1998; U06955.
PR   10-APR-1997; US-838821.
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PA (GEMY) GENETICS INST INC.
PI Agostino MJ, Jacobs K, Lavallie ER, McCoy JM, Merberg D,
PI Racie LA, Spaulding V, Treacy M;
DR WPI; 99-070077/06.
PT New polynucleotides encoding human secreted proteins - derived from
PT e.g. human blood, kidney, foetal lung, placenta, testes, brain,
PT ovary, pituitary, retina and colon cDNA libraries.
PS Claim 1; Page 224; 618pp; English.
CC The present sequence represents a human expressed sequence tag (EST).
CC The polynucleotide, which is a secreted EST, and the encoded protein
CC are predicted to have useful biological activities which would make
CC them suitable for treating, preventing or ameliorating medical
CC conditions in humans and animals, although no supporting data is
CC given. Suggested activities include nutritional activity, immune
CC stimulating or suppressing activity, haematopoiesis regulating
CC activity, tissue growth activity, activin/inhibin activity,
CC chemotactic/chemokinetic activity, haemostatic and thrombolytic
CC activity, receptor/ligand activity, anti-inflammatory activity,
CC cadherin/tumour invasion suppressor activity, tumour inhibition
CC activity. The polynucleotide may also be useful for gene therapy.
SQ Sequence 273 BP; 63 A; 77 C; 62 G; 71 T;

Query Match 1.3%; Score 42.4; DB 1; Length 273;
Best Local Similarity 57.6%; Pred. No. 0.23;
Matches 76; Conservative 0; Mismatches 56; Indels 0; Gaps 0;

```
Qy   1501 CCACCAAAAGACAAGACCATCATCCTGGAGCAGCTGCGGAAGATCTCCCTACCTCTCTAC 1560
          || |||   ||| |||||  |  || |  ||    | ||    | || |     ||||
Db    124 CCCCCAGCTGACCAGACCCTGGTCATCAAGACATTCCGCTTCCTGTCACAGAAACTCTTT 183

Qy   1561 AGCATCCTCTCTGCCCTCACCATCCTCGGGATGATCATGGCCAGTGCTTTTCTCTTCTTC 1620
          | |  | ||||  |  ||| ||| ||| || ||  || | ||   ||  | ||| | |||
Db    184 ATCTCCGTCTCAGTTCTCTCCAGCCTGGGCATTGTCCTAGCTGTTGTCTGTCTGTCCTTT 243

Qy   1621 AACATCAAGAAC 1632
          |||||| | |||
Db    244 AACATCTACAAC 255
```

RESULT 11
X53491/c
ID X53491 standard; DNA; 114955 BP.
AC X53491;
DT 05-JUL-1999 (first entry)
DE Human adenosine A1 receptor antisense oligonucleotide fragment.
KW Antisense oligonucleotide; multiple target; antisense treatment;
KW impaired respiration; inflammation; lung disease;
KW pulmonary vasoconstriction; inflammation; allergic rhinitis;
KW acute asthma; allergy; asthma; impeded respiration;
KW respiratory distress syndrome; pain; cystic fibrosis;
KW pulmonary hypertension; pulmonary vasoconstriction; emphysema;
KW chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
KW colon cancer; breast cancer; lung cancer; pancreatic cancer;
KW hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
KW prostate cancer; ss.
OS Synthetic.
PN WO9913886-A1.
PD 25-MAR-1999.
PF 17-SEP-1998; U19419.
PR 09-JUN-1998; US-093972.
PR 17-SEP-1997; US-059160.
PA (UYEC-) UNIV EAST CAROLINA.
PI Nyce JW;
DR WPI; 99-229400/19.
PT New antisense oligonucleotides used in treatment of, e.g. pulmonary
PT vasoconstriction
PS Disclosure; Page 37; 120pp; English.
CC The specification describes antisense oligonucleotides (X52869-X55271)
CC directed against at least 2 mRNAs selected from target genes, coding and
CC non-coding regions of RNAs corresponding to target genes, gene
CC initiation codons, genomic flanking regions, intron-exon borders, the
CC 5'-end, the 3'-end and the juxta-section between coding and non-coding
CC regions and all segments of RNAs encoding proteins associated with one
CC or more diseases, conditions or mixtures. The antisense oligonucleotides
CC may be derived from sequences X55272-74. These multiple target
CC oligonucleotides (specifically X55180-271) can be used for the antisense
CC treatment of diseases and conditions. Typical diseases and conditions
CC are those associated with impaired respiration and inflammation,
CC including lung diseases, pulmonary vasoconstriction, inflammation,
CC allergic rhinitis, acute asthma, allergies, asthma, impeded respiration,
CC respiratory distress syndrome, pain, cystic fibrosis, pulmonary
CC hypertension, pulmonary vasoconstriction, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukemias, lymphomas,
CC carcinomas e.g. colon cancer, breast cancer, lung cancer, pancreatic
CC cancer, hepatocellular carcinoma, kidney cancer, melanoma, hepatic
CC metastases, as well as all types of cancers which may metastasize or have
CC metastasized to the lungs, including breast and prostate cancer.
SQ Sequence 114955 BP; 6071 A; 29417 C; 36712 G; 21328 T;

Query Match 1.3%; Score 42.4; DB 1; Length 114955;
Best Local Similarity 37.1%; Pred. No. 2.8;
Matches 112; Conservative 47; Mismatches 143; Indels 0; Gaps 0;

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Qy   2808 CCTCCACCACGCCTACCTCCCATCCATCGGAGGCGTGGACGCCAGCTGTGTCAGCCCCTG 2867
          || |  || |:|| ||  ||:  |||  ||:  |  | | |:|: |   |   |||:|
Db  73675 CCACACCCCCVCCGACAGCCVCVCCACAGGVACCAVGAAGGVCVCCGCGGCACGCCVCGC 73616

Qy   2868 CGTCAGCCCCACCGCCAGCCCCCGCCACAGACATGTGCCACCCTCCTTCCGAGTCATGGT 2927
          :| ||:||:||::||:| : |||:|: |  :|  |  :|: || ||   : :: |: ||
Db  73615 VGVCAVCCVCAVVGCVACVGCCCVCVGCGCVCCVGCAVCVGCCVCCCCAVAVVCCVCGGA 73556

Qy   2928 CTCGGGCCTGTAAGGGTGGGAGGCCTGGGCCCGGGGCCTCCCCCGTGACAGAACCACACT 2987
          | |    |     :|  ::|  : | ::|||||    |  ||||| | |   :   ::|
Db  73555 CACCACACCCVGCVGCVVVGCCVACAVVGCCCGCCCACVGCCCCGVGCCCNNHNNNSVCC 73496

Qy   2988 GGGCAGAGGGGTCTGCTGCAGAAACACTGTCGGCTCTGGCTGCGGAGAAGCTGGGCACCA 3047
           ::   |   |   |  || |  |:     |: |    | | ||| | : :|   :
Db  73495 CVVGGAACCAGAGAGAAGCCGGGAVGGAAACVCCAAACACCACAGAGGACVAVGANNHNN 73436

Qy   3048 TGGCTGGCCTCTCAGGACCACTCGGATGGCACTCAGGTGGACAGGACGGGGCAGGGGGAG 3107
           :   | || |  ||::: ||  :|  | : |   :  |: |  || ||:| | | |  |
Db  73435 NSCACGACCACAGAGVVVGACVAVGGGGAVGCAACVCCGVGCCAGAAGGVGAACGAGAGG 73376

Qy   3108 AC 3109
           |
Db  73375 GC 73374
```

RESULT 12
Q73383
ID Q73383 standard; DNA; 1312 BP.
AC Q73383;
DT 04-MAY-1995 (first entry)
DE Human CCAAT/Enhancer Building Protein (C/EBP) DNA.
KW CCAAT/Enhancer binding protein; transferrin; ApoB; enhancer;
KW terminally differentiated cell type; inhibit tumour proliferation;
KW diagnosis; hepatitic function; ss.
OS Homo sapiens.
FH Key Location/Qualifiers
FT cds 151. .1233
FT /*tag= a
FT /note= "C/EBP alpha"
PN WO9420113-A.
PD 15-SEP-1994.
PF 04-MAR-1994; U02389.
PR 04-MAR-1993; US-029325.
PA (BAYU) BAYLOR COLLEGE MEDICINE.
PI Darlington GJ, Wilde M, Wilson D;
DR WPI; 94-302665/37.
DR P-PSDB; R62381.
PT Human CCAAT/Enhancer Building Protein DNA- - for inhibiting
PT tumour proliferation and the diagnosis of hepatic function
PS Claim 3; Page 43-44; 66pp; English.
CC The C/EBP alpha (CCAAT/Enhancer binding protein) gene sequence was

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CC   isolated from genomic DNA obtained from the human hepatoma cell line
CC   Hep 3B2. C/EBP's comprise a class of EBPs whose members are capable
CC   of preferentially recognising and binding a CCAAT sequence motif
CC   (such as is found in the transferrin and ApoB genes), and enhancer
CC   core sequence motif, or the enhancer regions of several viral
CC   promoters. The DNA may be used in gene therapy to inhibit the
CC   proliferation of a tumour cell, esp. in antisense form, and may also
CC   be used to induce proliferation of a hepatic cell. Transgenic mice
CC   can be used to determine the carcinogenic potential of a chemical.
SQ   Sequence   1312 BP;    197 A;    513 C;    471 G;    131 T;

  Query Match             1.3%;  Score 41.8;  DB 1;  Length 1312;
  Best Local Similarity   54.1%;  Pred. No. 0.63;
  Matches   85;  Conservative    0;  Mismatches   72;  Indels    0;  Gaps    0;

Qy    2818 GCCTACCTCCCATCCATCGGAGGCGTGGACGCCAGCTGTGTCAGCCCCTGCGTCAGCCCC 2877
           |||   |  |||| || | |  ||  || | ||    |   | ||||  ||    ||||
Db     797 GCCAGACCACCATGCACCTGCAGCCCGGTCACCCCACGCCGCCGCCCACGCCCGTGCCCA 856

Qy    2878 ACCGCCAGCCCCCGCCACAGACATGTGCCACCCTCCTTCCGAGTCATGGTCTCGGGCCTG 2937
             ||  || ||| ||||   |    ||||| ||  ||||||| | | |||   || ||
Db     857 GCCCGCACCCCGCGCCCGCGCTCGGTGCCGCCGGCCTTCCGGGCCCTGGCAGCGCGCTCA 916

Qy    2938 TAAGGGTGGGAGGCCTGGGCCCGGGGCCTCCCCCGTG 2974
               || |||| | |  |  ||| |  |  | | || |
Db     917 AGGGGCTGGGCGCCGCGCACCCCGACCTCCGCGCGAG 953


RESULT  13
T44325
ID   T44325 standard; DNA; 1312 BP.
AC   T44325;
DT   27-JAN-1997  (first entry)
DE   DNA encoding CCAAT/Enhancer binding protein C/EBP-alpha.
KW   C/EBP-alpha; transcription factor; enhancer; cancer; treatment;
KW   gene therapy; CCAAT sequence motif; ss.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   cds             151. .1233
FT                   /*tag=  a
FT                   /product= CCAAT/enhancer binding protein
PN   US5545563-A.
PD   13-AUG-1996.
PF   04-MAR-1993; 029325.
PR   04-MAR-1993; US-029325.
PR   04-MAR-1994; US-205506.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
PI   Darlington GJ,  Wilde M,  Wilson DR;
DR   WPI; 96-383675/38.
DR   P-PSDB; W06797.
PT   DNA encoding human CCAAT-enhancer binding protein - useful for gene
PT   therapy of cancer, etc.
PS   Claim 2; Column 23-26; 23pp; English.
CC   The present sequence encodes human CCAAT/Enhancer Binding Protein (EBP)
CC   C/EBP-alpha (W06797). EBPs are transcriptional factors that bind to
CC   enhancer sequences. The ability of an enhancer to mediate gene expression
CC   in a particular cell is dependent upon the expression of an appropriate
CC   EBP in that cell. CCAAT/EBPs comprise a class of EBPs that are capable of
CC   preferentially recognising and binding a CCAAT sequence motif (such as
CC   found in the transferrin and ApoB genes), an enhancer core sequence
CC   motif, or the enhancer  regions of several viral promoters. The C/EBP-
CC   alpha DNA sequence is useful in gene therapy, esp. to treat cancer and
CC   other diseases. The present sequence differs from that described in
CC   U.S. patent application Ser. No. 8029325, most notably in including
CC   a 65 residue long NotI-NotI oligonucleotide (nucleotides 558-622 of the
CC   present sequence) between positions 556-557 of the prior sequence.
SQ   Sequence   1312 BP;    197 A;    513 C;    471 G;    131 T;

  Query Match             1.3%;  Score 41.8;  DB 1;  Length 1312;
  Best Local Similarity   54.1%;  Pred. No. 0.63;
  Matches   85;  Conservative    0;  Mismatches   72;  Indels    0;  Gaps    0;

Qy    2818 GCCTACCTCCCATCCATCGGAGGCGTGGACGCCAGCTGTGTCAGCCCCTGCGTCAGCCCC 2877
           |||   |  |||| || | |  ||  || | ||    |   | ||||  ||    ||||
Db     797 GCCAGACCACCATGCACCTGCAGCCCGGTCACCCCACGCCGCCGCCCACGCCCGTGCCCA 856

Qy    2878 ACCGCCAGCCCCCGCCACAGACATGTGCCACCCTCCTTCCGAGTCATGGTCTCGGGCCTG 2937
             ||  || ||| ||||   |    ||||| ||  ||||||| | | |||   || ||
Db     857 GCCCGCACCCCGCGCCCGCGCTCGGTGCCGCCGGCCTTCCGGGCCCTGGCAGCGCGCTCA 916

Qy    2938 TAAGGGTGGGAGGCCTGGGCCCGGGGCCTCCCCCGTG 2974
               || |||| | |  |  ||| |  |  | | || |
Db     917 AGGGGCTGGGCGCCGCGCACCCCGACCTCCGCGCGAG 953


RESULT  14
Q73500/c
ID   Q73500 standard; DNA; 8438 BP.
AC   Q73500;
DT   15-MAY-1995  (first entry)
DE   DNA encoding Pseudorabies virus large latency transcript.
KW   Pseudorabies virus; PRV; LLV; large latency transcript;
KW   attenuated virus; vaccine; early protein 0; EP0; HSV-1 ICP0;
KW   protecting animals; deletion mutants; swine; ds.
OS   Pseudorabies virus.
FH   Key             Location/Qualifiers
FT   misc_feature    1. .7013
FT                   /*tag=  a
FT                   /note= "derived from PRV strain InFh"
FT   misc_feature    7014. .8425
FT                   /*tag=  b
FT                   /note= "derived from PRV strain Ka"
FT   cds             622. .6498
FT                   /*tag=  c
FT                   /note= "encodes predicted amino acid sequence of ORF2"
FT   tata_signal     1. .6
FT                   /*tag=  d
FT   misc_feature    34
FT                   /*tag=  e
FT                   /note= "RNA cap site"
FT   polya_signal    8382. .8387
FT                   /*tag=  f
PN   US5352596-A.
PD   04-OCT-1994.
PF   11-SEP-1992; 945283.
PR   11-SEP-1992; US-945283.
PA   (USDA ) US SEC OF AGRIC.
PI   Cheung AK,  Wesley RD;
DR   WPI; 94-316187/39.
DR   P-PSDB; R60620.
PT   New pseudorabies virus mutants for use in vaccine - having a
PT   deletion and/or insertion in the early protein O gene or large
PT   latency transcript gene
PS   Disclosure; Column 15-30; 43pp; English.
CC   Q73500 shows the Pseudorabies virus (PRV) large latency transcript
CC   (LLT). The basic sequence is derived from PRV strain InFh and PRV
CC   strain Ka. The LLT overlaps and is transcribed in the opposite
CC   orientation with respect to the EP0 (early polypeptide 0) and the
CC   immediately early gene (IE180). EP0 is nonessential for replicatio,
CC   LLT is the only gene expressed during PRV latency, and the IE180
CC   gene is absolutely necessary for PRV replication. However there are
CC   2 copies of IE180 in the genome. It is expected that PRV lacking one
CC   of the IE180 copies is viable. Deletions in the non-overlapping
CC   regions of these 3 genes will generate single deletion routants,
CC   while deletions in overlapping regions will generate double deletion
CC   mutants. The invention is concerned with the construction of attenuated
CC   viruses which have a reduced ability to reactivate from latency. This
CC   can be achieved by functionally disabling the expression of the EP0
CC   gene, or by disrupting the synthesis of the LLT, or both.(See also
CC   Q73501 and R60620-24)
SQ   Sequence   8438 BP;    1141 A;    2916 C;    3327 G;    1054 T;

  Query Match             1.3%;  Score 41.6;  DB 1;  Length 8438;
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```
  Best Local Similarity   48.1%;  Pred. No. 1.5;
  Matches  148;  Conservative    0;  Mismatches  159;  Indels    1;  Gaps    1;

Qy     132 CCGGTCCAGGCTGCGGCGGAGTCGAGGGCGAGGGAGAGGCCGCGTGAGTGAGCAGAGTCC 191
           || |  | |||  |||||| | || | ||        | |  |  |  |  |     |||
Db    4305 CCAGCGCCGGCGCCGGCGGCGGCGGGCGCCCCCTCCGGCCTCCCCGGCTCCGGGCCCTCC 4246

Qy     192 AGAGCCGTGCGCCCCCAGAACTGCGCGTCCGCCCCGTGCACCCCCGCGCGCCATGCCCAG 251
           ||  |||   || || ||  | || |   | ||  || || | |||    | |  ||
Db    4245 AGCCCCGCCAGCACCAAGTCCGGCTCCAGCACCAAGTCCAGCTCCGGCACCAAGTCCGGC 4186

Qy     252 TTGCCCCGCGCGCTCTGCTACGGGCCCGCTCTCCATCATGGGCCTCATGCCGCTCACCAA 311
            |  || || |   | ||||||    | | | |      || ||  |  | || | || |
Db    4185 CTCTCCGGCTCCTCCGGCTACGCCAGCTCCCCCGCCGCCGGCCCGGACCCAGCGC-CCGA 4127

Qy     312 GGAGGTGGCCAAGGGCAGCATCGGGCGCGGTGTGCTCCCCGCCGTGGAACTGGCCATCGA 371
           |  |      |||    ||  || || ||| |  | || | ||| |||    |     ||
Db    4126 GCGGCGCAAGAAGAAGCGCCGCGCGCCCGGGGCCCGCCGCCCCGGGGACGGCGAGGAGGA 4067

Qy     372 GCAGATCCGCAACGAGTCACTCCTGCGCCCCTACTTCCTCGACCTGCGGCTCTATGACAC 431
             ||   | |  ||  ||   ||| |||    ||  || || ||  ||   | | ||
Db    4066 CGAGGGGCTCTCCGGCTCGGCCCTCCGCGGGGACGGCCACGGCCACCGCGACGACGAAGA 4007

Qy     432 GGAGTGCG 439
           |||  | |
Db    4006 GGACCGGG 3999


RESULT  15
T35233/c
ID   T35233 standard; cDNA; 2823 BP.
AC   T35233;
DT   05-DEC-1996  (first entry)
DE   Natural killer lytic associated protein cDNA.
KW   Natural killer lytic associated protein; NKLAP;
KW   cytotoxic T-lymphocyte; CTL; natural killer cell; antisense;
KW   tumour; cancer; renal carcinoma; melanoma; herpes simplex virus;
KW   hepatitis virus; infection; graft vs. host; autoimmune disease;
KW   systemic lupus erythematosus; rheumatoid arthritis; gene therapy;
KW   ds.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   cds             190. .1953
FT                   /*tag=  a
FT   signal_peptide  190. .324
FT                   /*tag=  b
FT                   /note= "putative signal peptide"
FT   mat_peptide     325. .1950
FT                   /*tag=  c
PN   WO9626744-A1.
PD   06-SEP-1996.
PF   01-MAR-1996; U02736.
PR   02-MAR-1995; US-398008.
PA   (UYAR-) UNIV ARKANSAS.
PI   Kornbluth J;
DR   WPI; 96-412588/41.
DR   P-PSDB; R99256.
PT   New human natural killer lytic associated protein  - useful for
PT   treating cancer, viral infections, graft vs. host or autoimmune
PT   diseases.
PS   Claim 2; Page 30-32; 65pp; English.
CC   A cDNA clone (T35233) codes for a human natural killer lytic
CC   associated protein (NKLAP) (R99256).  It was isolated by:
CC   preparing an interferon-beta stimulated natural killer 3.3 cDNA
CC   library; selecting cDNA from the library that was expressed at
CC   elevated levels in interferon-beta stimulated 3.3 cells; and
CC   sequencing the isolated clones.  The cDNA can be used for prodn.
CC   of commercial quantities of NKLAP in transformed bacterial (esp.
CC   E. coli), mammalian (esp. NK 3.3) or insect (esp. Sf9) host cells.
CC   It is useful in gene therapy protocols to enhance the antitumour,
CC   antiviral and antimicrobial activity of NK cells.  Antisense
CC   sequences (see also T35234-35) are useful therapeutically.
SQ   Sequence   2823 BP;    653 A;    761 C;    807 G;    602 T;


  Query Match             1.3%;  Score 41.6;  DB 1;  Length 2823;
  Best Local Similarity   44.7%;  Pred. No. 0.96;
  Matches  161;  Conservative    0;  Mismatches  199;  Indels    0;  Gaps    0;

Qy    2778 CCAGCGTCGGCTGTCCCTCCAGCTCCCCATCCTCCACCACGCCTACCTCCCATCCATCGG 2837
           ||||   | || | | ||||| |||| |  |  ||    | ||  |||||    | ||
Db     559 CCAGGCACAGCGGACACTCCACCTCCTCCCCGCCCGGGCCACCGCCCTCCGCCGCCTCCT 500

Qy    2838 AGGCGTGGACGCCAGCTGTGTCAGCCCCTGCGTCAGCCCCACCGCCAGCCCCCGCCACAG 2897
             ||| ||  ||||      |  || | ||  | ||| |  |  | ||| | ||  | |
Db     499 CATCGTCGAACCCAGGCTCCGCCCCCGCCGCCGCGGCCTCCGCCTCGGCCTCGGCGGCCG 440

Qy    2898 ACATGTGCCACCCTCCTTCCGAGTCATGGTCTCGGGCCTGTAAGGGTGGGAGGCCTGGGC 2957
           |  |     |   | || |      || |  ||||       || |   || | ||
Db     439 GCTCGGCGGGCAGCGCCTCGGGCGGCGGGCCCTGGGCCGCGGCAGGGGCCGGGGCGGCG 380

Qy    2958 CCGGGGCCTCCCCCGTGACAGAACCACACTGGGCAGAGGGGTCTGCTGCAGAAACACTGT 3017
           ||| | | |  ||| |   |               |    | |    ||       | |
Db     379 GCGGCGGCGCAGCCGGGGGCGGCGGCTCGGCCTGCGGCTTGGCCCGGGCGCGGCGGCCGC 320

Qy    3018 CGGCTCTGGCTGCGGAGAAGCTGGGCACCATGGCTGGCCTCTCAGGACCACTCGGATGGC 3077
           |||   ||| | | ||| |||| |||   ||    |||      | || |     |||
Db     319 GGGCCGAGGCAGAGAAGACGCTGTGCAAGGTGAGGCGCCGGCGCCGGCCGCCGCTGCGGC 260

Qy    3078 ACTCAGGTGGACAGGACGGGGCAGGGGGAGACTTGGCACCTGACCTCGAGCCTTATTTGT 3137
           ||| |||       |  | ||| |  | ||  |||  |  | |  |  |   |  || |
Db     259 ACTTAGGGTCGGGTGCGGCCGCATGTAGCGATGTGGAGCGCGGCGACTCGGAGTCCTTCT 200


Search completed: March 16, 2000, 17:40:53
Job time: 3797 sec
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